DATA STORAGE SYSTEM HAVING SEPARTE DATA TRANSFER SECTION AND MESSAGE NETWORK WITH PLURAL DIRECTORS ON A COMMON PRINTED CIRCUIT BOARD

ABSTRACT

A system interface having a plurality of first directors and a crossbar switch having input/output ports coupled to the first directors on such one of the first director boards and a pair of output/input ports. A plurality of second director boards is provided. Each one of the second directors boards has a plurality of second directors a crossbar switch having input/output ports coupled to the second directors on such one of the second director boards and a pair of output/input ports. A data transfer section is provided having a cache memory. The cache memory is coupled to the plurality of first and second directors. A message network is provided, such network being operative independently of the data transfer section. The first and second directors control data transfer between the first directors and the second directors in response to messages passing between the first directors and the second directors through the message network to facilitate data transfer between first directors and the second directors. The data passes through the cache memory in the data transfer section. Each one of the directors includes a data pipe coupled between an input of such one of the first directors and the cache memory; a microprocessor. A controller is coupled to the microprocessor and the data pipe for controlling the transfer of the messages between the message network and such one of the first directors and for controlling the data between the input of such one of the first directors and the cache memory.